SKORA, Stanislaw, mgr., inz.

Common crucian Carassius carassius L. from the lake fishery in Golysz. Acta hydrobiol 3 no.2/3:91-111 '61.

1. Zaklad Biologii Wod, Polska Akademia Nauk, Krakow, ul. Slawkowska 17.

SKORA, Stanislaw, mgr

Crucian carp and raising it in ponds. Acta hydrobiol 4 no.3/4: 245-266 '62.

1. Zaklad Biologii Wod, Polska Akademia Nauk, Krakow.

LENDZION, Andrzej; PENCZEK, Bibianna; SKORA, Stanislaw

Epoxide resin adhesives modified with polyvinyl acetals. Polimery tworzywa wieloczast 7 no.2:68-72 F '62

1. Instytut Tworzyw Sztucznych, Warszawa.

SKORABAGATY, V., kandidat gistarychnykh navuk.

Plekhanov's birth. Rab.i sial. 32 no.12:15-16 D '56. (MLRA 9:12)
(Plekhanov, Georgii Valentinovich, 1856-1918)

SKORACHINSKIY, Z.

Modernization of machines manufacturing viscose stable fibers. Khim. volok. no.2:44-48 '60. (MIRA 13:12)

1. TSentral'noye tekhnicheskoye byuro Pol'skoy Narodnoy Respubliki.
(Rayon industry and trade—Equipment and supplies)

Skoraczynski, Z.

Hermetic spinning machine WX-10 for vicose cut yarn. p. 379.

PRZEGLAD WLOKIENNICZY. (Stowarzyszenie Inzynierow i Technikow Przemyslu Wlokienniczego) Lodz, Poland. Vol. 13, No. 7, July 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, No. 2, Feb. 1960.

Uncl.

S/081/62/000/022/052/088
B180/B186

AUTHOR: Skoraczyński, Zbigniew

TITLE: Winding apparatus WS5b for drawing glass fiber

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1962, 358, abstract 22K295 (Przegl. włokienn., v. 16, no. 2, 1962, 119-120 [Pol.; summaries in Russ., Eng., Ger. and French])

TEXT: The article describes a winding apparatus which has the following technical characteristics: theoretical output (204 spinnerets) $\sim$40 kg/day; spread width of bobbin 100 mm; rate of winding and number of revolutions 2,500-3,000-3,500 m/min and 5,500-6,600-7,700 rpm; number of fibers per thread 102-204; diameter of elementary fiber 3-7 μ. Its dimensions are as follows: height 921 mm, length 730 mm, width 735 mm, height from top to bottom of bobbin 600 mm; weight 1,540 kg. [Abstracter's note: Complete translation.]

Card 1/1

9

PTA

628.21 001.2

1526
Skoruszewski, W., Prospects of Utilising City Sewage.
„Możliwości wykorzystania scieków" Miasto No 6, 1951, pp
22–26, 2 figs., 4 tabs

Elucidation of the problem of utilising the effluents and sludge from city sewage. Technical and economic aspects of this problem. Sewage utilisation scheme for the city of Warsaw Metropolitan Community.

SKORASZEWSKI, W.

5724 028.1 : 369.6

Skoraszewski W. Water Consumption Standards in Communal and Industrial Economy.

„W sprawie norm zużycia wody w gospodarce komunalnej i przemysłowej". Gospodarka Wodna. No. 4, 1953, pp. 123—126, 1 fig., 5 tabs.

The progressive per-capita increase of water consumption in Warsaw (which for the past six years amounted to 20 per cent), and the difficulties incidental to determining consumption standards to serve as a basis for the designing of new water-supply works. Allocation of water for public utility and industrial purposes and ensuring that the waterworks should be able to meet fully the public and industrial water requirements, within the area where they operate. The communal water consumption standards should, according to the per-capita and per diem rate of water consumed by public utility sanitary services, for scavenging and watering roadways and green areas, for flushing sewers and similar purposes, be computed at 255 litres. The estimated industrial water consumption varies from 25 to 100 per cent of such a standard rate. The gross standard industrial rate (including losses in the pipe system) amounts to from 370 to 600 litres per capita per diem. Brief substantiation is included of the computations and of the standard rates suggested by the author.

Skoraszewski, W.

628.394

3075

Skoraszewski W. Self-Purification of Open Waters, and Tolerable Rate
of Pollution by Sewage Effluents.
„Samooczyszczanie wód otwartych oraz dopuszczalne obciążenie ich
ściekami". Gospodarka Wodna. No. 7, 1953, pp. 246—251, 6 tabs.

Industrial development and the expansion of towns and settlements
in Poland carries with it the pressing problem of protecting the waters
from pollution by effluents. The author gives a concise review of
various scientists' research, constituting a contribution of world-wide
importance towards the problems of self-purification of open waters. He
deals with the following problems: the speed with which self-purifi-
cation of waters proceeds as a result of oxygen absorption; the influ-
ence of temperature on the time of self-purification, and, finally, with
the tolerable rate of river pollution by effluents.

Skoraszewski, W.

3041 627.8.02

Skoraszewski W. The Possibilities of Building Hydro-Engineering Works below River and Water Reservoir Beds without Using Compressed Air.

„Możliwości budowy obiektów inżynierskich pod dnem rzek i zbiorników wodnych bez użycia powietrza sprężonego." Gospodarka Wodna. No. 8, 1953, pp. 289—291, 3 figs.

Hydro-engineering works underneath river and water reservoir beds involve the use of either horizontal or vertical caissons in which work under excess air pressure is extremely arduous. Experiments carried out on a deposit model, intended for examination of the efficiency of horizontal filters, and provided with piezo-electric pressure gauges, have revealed that the pressure close to the tunnel head can be adjusted to atmospheric level after the pumps have been started. It thus follows that it is possible, in completely impermeable soil and at random depth, to construct tunnels below the river bed without the necessity of working in a compressed air atmosphere.

SKORASZEWSKI, W.

"Studying the Shifting of the Sand on the Bottom of the Wisla (Vistula) during the Spring Flood of 1952." p. 106, (GOSPODARKA WODNA, Vol. 13, No. 3, Mar. 1953. Warszawa, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

[illegible] [illegible],

"New method of taking water from soil and rivers at the coast."
Gospodarka Wodna, Warsaw, Vol 13, No 11, Nov 1953, p. 416

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

SKORASZEWSKI, W.

"Organization of inland water navigation in Poland." p. 30
(Gospodarka Wodna, Vol 13 No 1 Jan 53 Warszawa)

SO: Monthly List of East European Accessions, Vol 2 No 9 Library of Congress Sept 53 Uncl

SKORASZEWSKI, W.

"Silicatization of Loose Top Soils." p. 70 (GOSPODARKA WODNA, Vol. 13, No. 2, Feb. 1953)
Warszawa

SO: Monthly List of East European Accessions, Library of Congress, Vol. 2, No10.,
October 1953. Unclassified.

SKORASZEWSKI, W.

"The problem of water consumption standards in the communal and industrial economy." p.123
(Gospodarka Wodna, Vol 13 No 4 Apr 53 Warszawa)

SO: Monthly List of East European Accessions, Vol 2 No 9 Library of Congress Sept 53 Uncl

SKORASZEWSKI, W.

"Economy Of Iron Material In The Construction Of Communal Water-Supply Systems" p. 331.
(*Gospodarka Wodna*, Vol. 13, no. 9, Sept. 1953, Warszawa)

SO: *Monthly List of* ~~*Russian*~~ East European *Accessions*, Vol.3, No. 2, Library of Congress, *February, 1954* ~~1953~~, Uncl.

SKORASZEWSKI, W.

"Cationic Exchangers of Great Capacity." p. 16 (GAZ, WODA I TECHNIKA SANITARNA, Vol 27, No. 1, Jan. 1953) Warszawa

SO: Monthly List of East European Accessions, Library of Congress, Vol. 2, No. 10 October 1953. Unclassified.

SKORASZEWSKI, W.

"Water Economy in Densely Populated Countries." p. 193 (GAZ, WODA I TECHNIKA SANITARNA, Vol. 27, No. 7, July 1953) Warszawa

SO: Monthly List of East European Accessions, Library of Congress, Vol. 2, No. 10, October 1953. Unclassified.

SKORASZEWSKI, W.

"Progress in the construction of rapid filter layers," Gaz, Woda I Technika Sanitarna, Warszawa, Vol 28, No 6, June 1954, p. 176.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

SKORASZEWSKI, W.

"Municipal Sewage Purifiers as Humus Manure Plants," P. 246. (GAZ, WODA I TECHNIKA SANITARNA, Vol. 28, No. 8, Aug. 1954, Warszawa, Poland)

SO; Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1, Jan. 1955 Uncl.

SKORASZEWSKI. W.

Transverse cross sections of sewers. p. 40, (GAZ, WODA I TECHNIKA SANITARNA, Vol. 29, No. 2, Feb. 1955, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5 May 1955, Uncl.

SKOMASLAWSKI, [illegible]

Some peculiarities of current water filtration. p. 174.
GAZ, WODA I TECHNIKA SANITARNA, Warszawa, Vol. 29, no. 5, May 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,
Uncl.

SKORASZEWSKI, W.

Sanitary danger in irrigating agricultural plants with town sewage and in using sewage deposits and waste as manure, p. 211, Vol. 29, no. 6, June 1955

GAZ, WODA I TECHNIKA SANITARNA

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EEAL), Vol. 4, No. 9, LC, Sept. 1955, Uncl.

SKORASZEWSKI, W.

New type of flushing tunnels in sanitary enigineering. p. 215, Vol, 29, no. 6, June 1955, GAZ, WODA I TECHNIKA SANITARNA

SO:MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EEAL), LC, Vol. 4, No. 9, Sept. 1955 , Uncl.

SKORASZEWSKI, W.

Principal materials for the building of city sewer pipes. p. 242.
(MATERIALY BUDOWLANE. Vol. 11, no. 8, Aug. 1956, Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957.
Uncl.

SKORASZEWSKI, W.

SKORASZEWSKI, W. An example of large-scale planning of industrial and town water consumption. p. 12. GAZA, WODA I TECHNIKA SANIT ARNA. Warszawa, Poland. Vol. 30, No. 1, Jan. 1956

SOURCE: East European Accessions List (EEAL) LC Vol. 5, No. 6, June 1956

SKORASZEWSKI, W.

Prefabricated elements for repairing pipe sockets. p. 111.
GAZ, WODA I TECHNIKA SANITARNA Warszawa Vol. 30, no. 3,
Mar. 1956

SOURCE: East European Accessions List (EEAL) Library of Congress
Vol. 5, no. 8, August 1956

SKORASZEWSKI, W.

The problem of town surveying in the light of the practice of the Warsaw metropolitan complex. p. 368
(GAZ, WODA I TECHNIKA SANITARNA Vol. 30 No. 10, Oct. 1956 Warsaw Poland)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 9, Sept. 1957 Uncl.

SKORASZEWSKI, W.

"Observations of the washing out of the Vistula River bed by floodwaters around the walls of a rotund construction."

p. 574 (Gospodarka Wodna) Vol. 17, no. 12, Dec. 1957
Warsaw, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

BARSKIY, V.A.; PERCHIK, D.Ya.; SKORBACH, A.M.

Introducing a high-speed noncontact control system for the main drive. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 18 no.6:43-44 Je '65. (MIRA 18:7)

POZDNEV,A.; SKORBACHEV,V.O., gvardii podpolkovnik, redaktor; KONOVALOVA,
Ye.K., tekhnicheskiy redaktor

[Creators of Russian weapons] Tvortsy otechestvennogo oruzhiia.
Moskva, Voen. izd-vo Ministerstva oborony SSSR, 1955. 449 p.
(MLRA 9:2)
(Arms and armor)

CHERVONNYY, Pavel Yevgen'yevich; SKORBACHEV, V.O., polkovnik, redaktor;
STREL'NIKOVA, M.A., tekhnicheskiy redaktor

[From sling to modern guns] Ot prashchi do sovremennoi pushki.
Moskva, Voen. izd-vo Ministerstva obor. SSSR, 1956. 138 p.
(Arms and armor) (Firearms) (MLRA 10:2)

SKoRbatov, L A.

USSR/Cosmochemistry. Geochemistry. Hydrochemistry. D

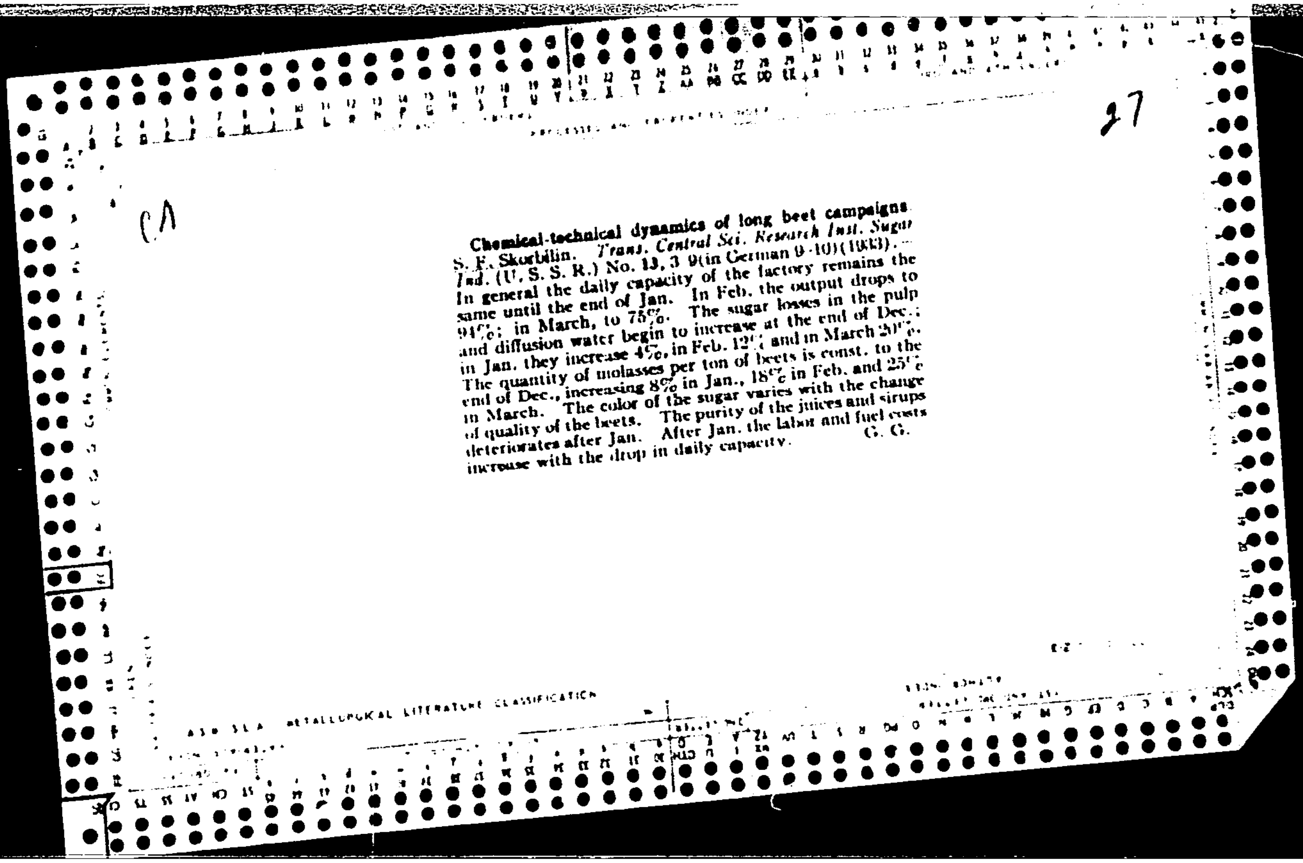
Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26593.

Author : Skorbatov, L.A.
Inst : Kharkov University.
Title : Results of Hydrobiological and Hydrochemical Study of the Molochnaya River.

Orig Pub : Zap. Khar'kovsk. un-ta, 1956, 67, 7 -21.

Abstract : The natural conditions of the basin of the Molochnaya river are described. The data from the article of T.A. Pashkova (see the preceding abstract) are repeated as results of the hydrochemical study.

Card 1/1



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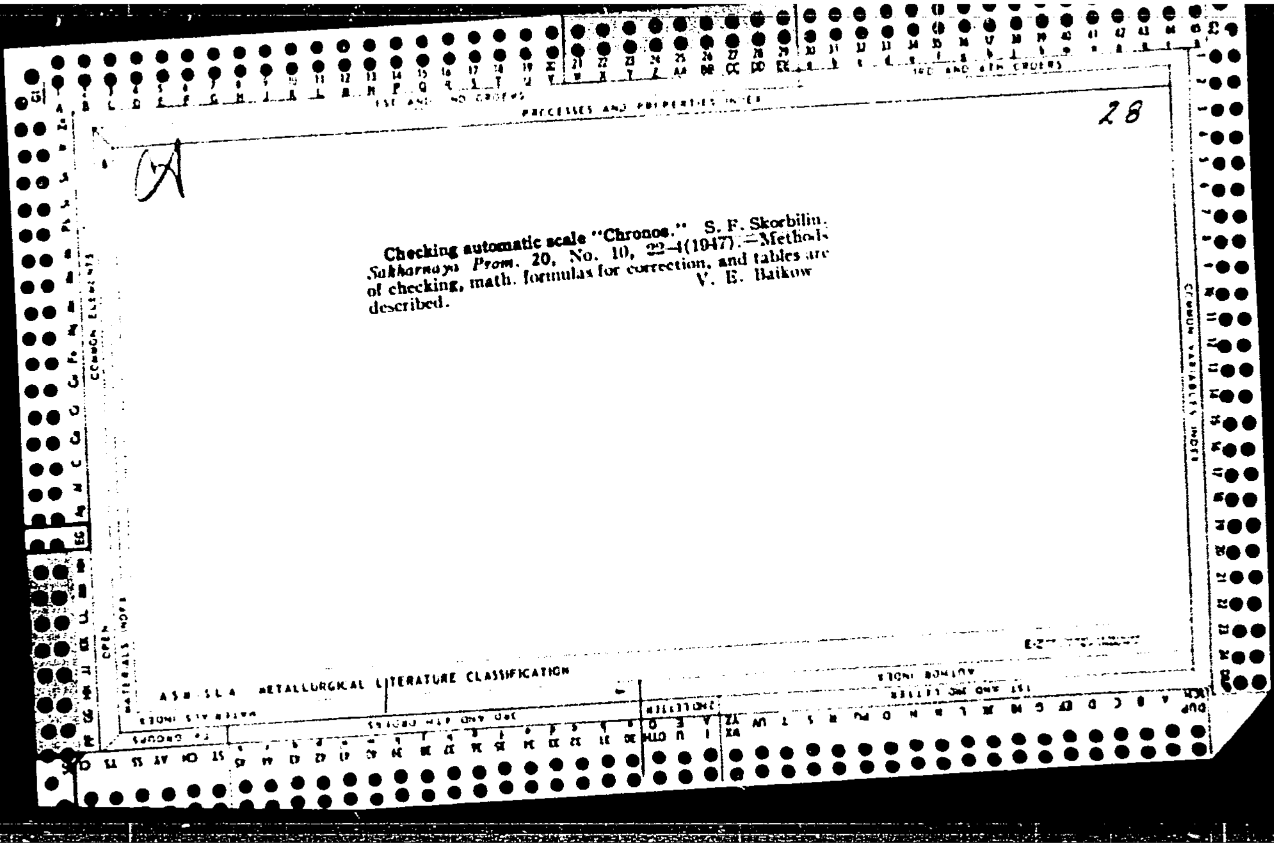
27

Chemical-technical dynamics of long beet campaigns. S. F. Skorbilin. *Trans. Central Sci. Research Inst. Sugar Ind.* (U. S. S. R.) No. 13, 3-9 (in German 9-10) (1933).—In general the daily capacity of the factory remains the same until the end of Jan. In Feb. the output drops to 94%; in March, to 75%. The sugar losses in the pulp and diffusion water begin to increase at the end of Dec.; in Jan. they increase 4%, in Feb. 12% and in March 20%. The quantity of molasses per ton of beets is const. to the end of Dec., increasing 8% in Jan., 18% in Feb. and 25% in March. The color of the sugar varies with the change of quality of the beets. The purity of the juices and sirups deteriorates after Jan. After Jan. the labor and fuel costs increase with the drop in daily capacity. G. G.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION


1ST AND 2ND GROUPS
PROCESSES AND PROPERTIES INDEX
3RD AND 4TH GROUPS
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

28

Checking automatic scale "Chronos." S. F. Skorbilin. *Sakharnaya Prom.* 20, No. 10, 22-4(1947).—Methods of checking, math. formulas for correction, and tables are described. V. E. Baikow

SKORBILIN, S. F.

Sugar Industry - Accounting

Control and accounting in production. Sakh. prom. 26 no. 9, 1952

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED.

SKORBILIN, S.F.

SKORBILIN, S.F.

(2)

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Sugar, Starch, and Gums

Determination of sugar losses in muddy waters from beet flumes. G. S. Benin and S. F. Skorbilin. *Sakharnaya Prom.* 27, No. 3, 23–7(1953).—Eight l. of water from beet flumes was collected per shift, decanted, and evapd. to about 0.6–0.7 l. and polarized. Amt. of water on the wt. of beets used for transportation in beet flumes was detd. It was approx. 700% on the wt. of beets. The losses of sugar in water from flumes while processing fresh and frozen beets represented 0.047% and 0.07% on the wt. of beets, resp. The procedure of the test is described and tables are shown. V. E. Baikow

1. SKORBILIN, S. F.

2. USSR (600)

4. Scales (Weighing Instruments)

7. Testing automatic scales for sugar beets. Sakh. prom. 27, No. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SKORBILIN, S. F.

②

Undetermined losses of sugar in diffusion water. G. S. Benin and S. F. Skorbilin. *Sakharnaya Prom.* 28, No. 1, 23-6(1954); cf. *C.A.* 48, 2399*c*.—Expts. conducted on a factory scale showed that undetd. losses of sugar in diffusion batteries were 0.04% on the wt. of beets. Such small losses indicate that microbiol., biochem., and chem. processes in the diffusion battery are very slow and do not affect control and balance of sugar. In order to eliminate undetd. losses it is necessary to install recording instruments on measuring tanks and replace mech. devices for closing bottom covers of diffusion cells with hydraulic devices.

V. E. B.

SKORBILIN, S. F.

USSR

Undetermined losses of sugar. G. S. Benin and S. F. Skorbilin. *Sakharnaya Prom.* 28, No. 7, 14-16(1954); cf. *C.A.* 48, 10303c.—All sirup was weighed, and carbonation juice returned to remelt station was measured. Diffusion, purification, and evapn. losses were sepd. from production losses by calcn. The total undetd. losses were 0.41% on the wt. of beets; in diffusion 0.07%, in purification and evapn. 0.25%, and in production 0.09%. Further investigations are planned. The expt. was conducted in Voronezh Sugar Factory. V. E. Baikow

SKORBILIN, Sergey Fedorovich, kandidat tekhnicheskikh nauk; DAMASKINA, G.B., redaktor; YAPASKURT, V.V., retsenzent; SEREGIN, P.V., redaktor; GOTLIB, E.M., tekhnicheskiy redaktor.

[Automatic density gauges] Avtomaticheskie plotnomery. Moskva, Pishchepromizdat, 1955. 49 p. (MLRA 8:11)
(Specific gravity)

SKORBILIN, S.F.

Radioactive substances for the control of viticulture. S. F. Skorbilin. *Vinodelie i Vinogradarstvo S.S.S.R.* 15, No. 7, 57(1955).—The use of radioactive materials to det. the density of wine at different stages of fermentation is suggested. Wine, flowing through a tube from one reservoir to another, is exposed to γ-rays and then the amt. of absorption of γ-rays by the wine detd. The degree of absorption of γ-rays by the wine depends upon the density of the soln.

Shirley B. Radding

1

SKORBILIN, S. F.

BENIN, G.S., kandidat tekhnicheskikh nauk; SKORBILIN, S.F., kandidat tekhnicheskikh nauk. [redacted]

Unaccounted losses of sugar in the processing of beets. Trudy TSINS no.4:163-179 '56. (MLRA 10:5)
(Sugar industry)

SKORBILIN, S.F.

Instructions on chemical engineering and records in beet sugar manufacture. Sakh.prom. 30 no.4:74 Ap '56. (MLRA 9:8)
(Sugar industry)

SKORBILIN, S.F.

Limit of accuracy in the analysis of saturation juice and feed molasses. Sakh. prom. 32 no.11:49-51 N '58. (MIRA 11:12)
(Sugar--Analysis)

SKORBILIN, S.F.

Automatic control of technological processes. Sakh. prom. 33 no.4: 37-39 Ap '59. (MIRA 12:6)
(Sugar machinery) (Automatic control)

SKORBILIN, S.F.

Organizational problems in the introduction of automatic control
Sakh.prom. 33 no.7:75 Jl '59. (MIRA 12:11)
(Sugar industry) (Automatic control)

SKORBILIN, S.F.

Calculating the consumption of lime in juice purification.
Sakh.prom. 34 no.2:24-25 F '60. (MIRA 13:5)
(Sugar manufacture) (Lime)

ROYTER, V.A.; USHAKOVA, V.P.; KORNEYCHUK, G.P.; SKORBILINA, T.G.

Kinetics and mechanism of the catalytic oxidation of naphthalene to 1,4-naphthoquinone. Kin. i kat. 2 no.1:94-102 Ja-F '61. (MIRA 14:3)

1. Institut fizicheskoy khimii imeni L.V. Pisarzhevskogo AN USSR.
(Naphthalene) (Naphthoquinone) (Chemical reaction, Rate of)

KORNEYCHUK, G.P.; USHAKOVA, V.P.; SKORBILINA, T.G.

Method for studying the reaction kinetics on catalysts in unsteady state. Kin.i kat. 2 no.6:931-935 N-D '61. (MIRA 14:12)

1. Institut fizicheskoy khimii AN USSR, Kiyev.
(Catalysis)

BRANDIS, Semen Aleksandrovich; SKORBILINA, T.N., red.; KUZ'MINA, N.S., tekhn.red.

[Advice of a physician to metalworkers and machinery industry workers] Sovety vracha metallistam i mashinostroiteliam. Moskva, Gos.izd-vo med.lit-ry Medgiz, 1960. 31 p. (MIRA 14:1)

(INDUSTRIAL HYGIENE)

DOBROMYL'SKIY, Filipp Isaakovich, prof.; SKORBILINA, T.N., red.;
POGOSKINA, M.V., tekhn. red.

[What we must know about laryngeal tuberculosis] Chto nuzhno znat' o tuberkuleze gortani. Moskva, Medgiz, 1961. 28 p. (MIRA 15:3)

(LARYNX—TUBERCULOSIS)

ARNOL'DI, Iosif Aleksandrovich, prof.; SKORBILINA, T.N., red.;
BASHMAKOV, G.M., tekhn. red.

[Acclimatization of man in the north and south] Akklimatizatsiia cheloveka na Severe i IUge. Moskva, Medgiz, 1962. 71 p.
(MIRA 15:12)
(MAN—INFLUENCE OF CLIMATE)

SOKOLOV, Mikhail Ignat'yevich, prof.; LAGUTINA, Ye.V., red.;
SKORBILINA, T.N., red.; BEL'CHIKOVA, Yu.S., tekhn. red.

[Active prevention of communicable diseases] Aktivnaia profilaktika infektsionnykh boleznei. Moskva, Medgiz, 1963. 38 p. (MIRA 16:6)

(COMMUNICABLE DISEASES--PREVENTION)

TUREVSKIY, Izrail' Isaakovich, kand. med.nauk; SKORBILINA, T.N.,
red.; PRONINA, N.D., tekhn. red.

[Radiculitis] Radikulity. Moskva, Medgiz, 1963. 18 p.
(MIRA 16:7)
(NERVES, SPINAL--DISEASES)

DEMIDOVA, Agripina Mikhaylovna; ~~SKORBILINA, T.N~~., red.; NEYMAN, M.I.,
red.; BASHMAKOV, G.M., tekhn. red.

[Sleep and dreams] Son i snovideniia. Moskva, Medgiz, 1963.
29 p. (MIRA 16:10)
(SLEEP) (DREAMS)

NESTEROVA, Aleksandra Petrovna, kand. med. nauk; OLENEVA, Vera Anatol'yevna, kand. med. nauk; SKORBILINA, T.N., red.; PRONINA, N.D., tekhn. red.

[Therapeutic nutrition in peptic ulcer] Lechebnoe pitanie pri iazvennoi bolezni. Moskva, Medgiz, 1963. 70 p. (MIRA 16:11)

(PEPTIC ULCER) (DIET IN DISEASE)

SOBOLEVA, V.D., doktor med. nauk; SKORBILINA, T.N., red.; NEYMAN,
M.I., red.; KOKIN, N.M., tekhn. red.

[Protect children from infectious diseases] Beregite detei
ot zaraznykh zabolevanii. Izd. 2., isp. i dop. Moskva,
Moskva, Medgiz, 1963. 184 p. (MIRA 17:2)

*

KOROBKEVICH, O.V.; SKORBILINA, T.N., red.; NEYMAN, M.I., red.

[For elderly people] Dlia pozhilykh. Moskva, Meditsina, 1964. 252 p. (MIRA 17:5)

POKROVSKIY, N.; SKORBIN, B., redaktor; TSIGEL'MAN, L., tekhnicheskiy
redaktor

[Aids for primary organizations of the Volunteer Society for Cooperation with the Army, Air Force and Navy; a collection of papers] V pomoshch' pervichnym organizatsiiam DOSAAF; sbornik materialov. Izd. 2-oe, ispr. i dop. Moskva, 1956. 175 p.
(MLRA 9:11)

1. Vsesoyuznoye dobrovol'noye obshchestvo sodeystviya armii, aviatsii i flotu.
(Military education)

SKORBIN, B.

The fire of inspiration never ceases burning. Radio no.3:7-8
Mr '62. (MIRA 15:3)
(Electronics in medicine)

SKORBIN, B.; GRIF, A.

Glorious career of a Stalin falcon. Voen. znan. 25 no.4:24 Ap '49.
(MIRA 12:12)

(World War, 1939-1945--Aerial operations)

SKORBIN, B. P.

USSR/Electronics

Card 1/1

Author : Skorbin, B. P.

Title : A Vocation

Periodical : Radio. 5, 16 - 17, May 1954

Abstract : A story about a Russian physician - a physio-therapeutist - his interest in radio since early school years, and his later inventions in the field of physio-therapeutical instruments. A general description of an electro-cardioscope patented by the inventor in 1953 is given.

Institution : ....

Submitted : ....

PERESYPKIN, I.T., marshal voysk svyazi; SKORBIN, B.P., redaktor; KARYAKINA, M.S., tekhnicheskiy redaktor

[Military radio operators] Voennye radisty. Moskva, Izd-vo DOSAAF, 1955. 53 p. (MIRA 9:3)

(Radio operators)

SKORBYASHCHENSKIY, A. A.

Skorbyashchenskiy, A. A. - "The results of testing various types of deflectors", Tekhnika zhel. dorgo,. 1948, No. 12, p. 27-28;

So: U-3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 7, 1949).

IN'SHAKOV, Nikolay Nikolayevich; SKORBYASHCHENSKIY, Aleksandr Aleksandrovich;
BRAYLOVSKIY, N.G., inzhener, redaktor; KHITROV, P.A., tekhnicheskiy
redaktor.

[Wear resistance of brake shoes] Iznosostoikost' tormoznykh kolodok.
Moskva, Gos. transport. zheleznodor. izd-vo, 1954. 67 p. (MIRA 8:4)
(Brakes)

PROCESSES AND PROPERTIES INDEX

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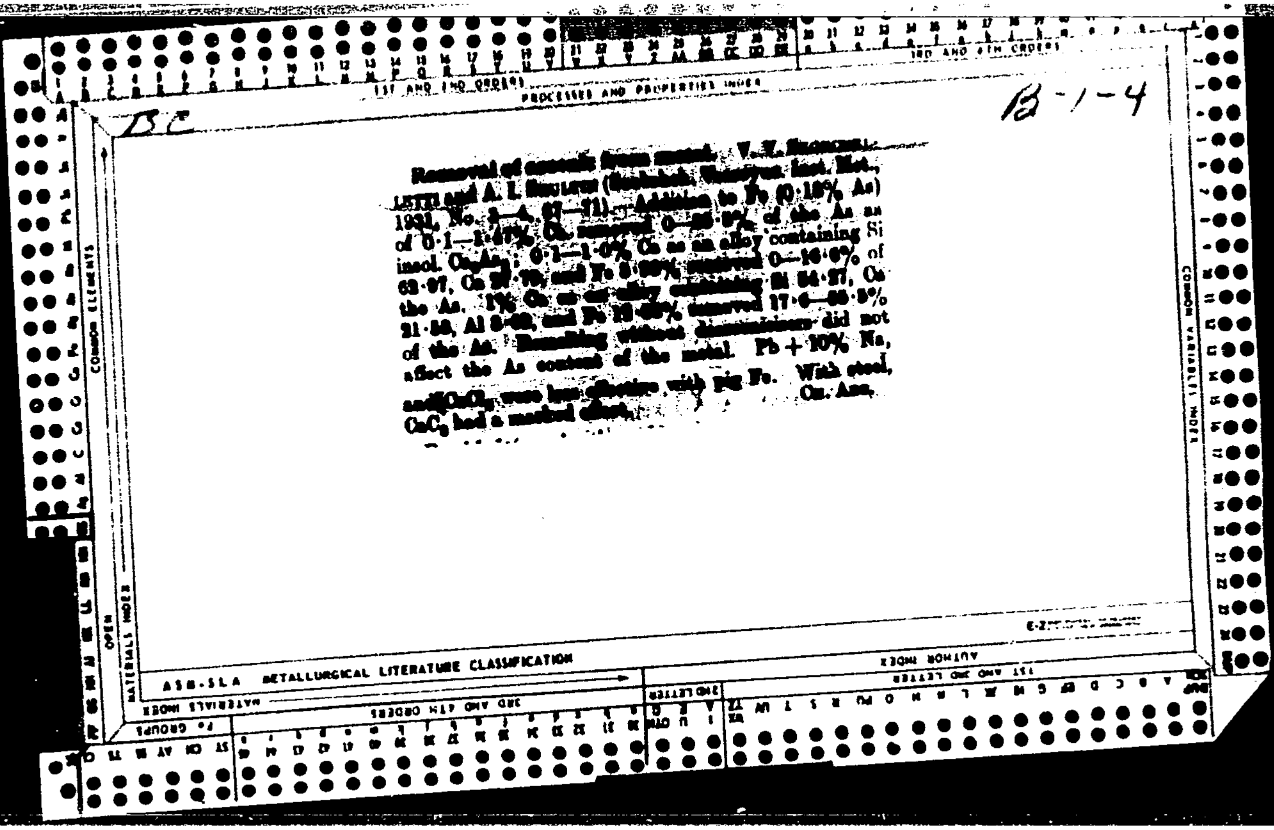
9

Effect of tin and copper on chemical stability of cast iron. V. V. Skorchelletti and A. I. Shultin. *Soobshcheniya Vsesoyuznogo Inst. Metal.* 1931, Nos. 1 2, 37 7. The effect of Sn and Cu, separately and combined, on chem. stability, particularly on resistance to acids, also on mech. properties of cast iron, was studied. The samples investigated had the compn.: C 3.5, Si 1.5, Mn 0.5 and max. S + P 0.5%. To this was added 2.0% Sn in one case, 1.60% Cu in another and a total of 3.5% Sn + Cu in a third case. Chem. stability of the samples was detd. by immersion in HNO_3, H_2SO_4, HCl and AcOH, 10 and 20% solns. Samples contg. Sn + Cu were also tested in 20% NaOH soln. The results of all the tests were expressed in terms of loss of wt. of the samples in g. per sq. m. surface per hr. Addn. of Sn lowers somewhat mech. strength of the iron and affects its resistance to acids as follows: in 10 and 20% HNO_3 chem. stability increases 2.25 and 2.0 times, resp.; in 10 and 20% H_2SO_4 6.5 and 2.5 times; in 10 and 20% HCl, 2.3 and 1.3 times, and in 10 and 20% AcOH 3 times, as compared with Sn-free cast iron. Addn. of Cu increases somewhat the strength of the metal and affects chem. stability as follows: it increases in 10 and 20% HNO_3, decreases in H_2SO_4 and increases 2 times in AcOH, when the Cu added is about 0.4%. Above this it decreases. In 10 and 20% HCl Cu increases chem. stability 8.1 and 4.5 times resp. As to Sn + Cu, 1.3% Sn and 1.5% Cu seem to give the best results. Further addns. do not improve the product. However, in HNO_3, a total of Sn + Cu = 3.5% produces a favorable effect. S. L. Madorsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
3RD AND 4TH ORDERS
COMMON ELEMENTS
COMMON VARIABLES INDEX
OPEN
MATERIALS INDEX
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION
AUTHOR INDEX
1ST AND 2ND LETTER
3RD AND 4TH ORDERS
Fe GROUPS

BE

B-1-4

Removal of arsenic from metals. V. V. [illegible] and A. I. [illegible] ([illegible] Inst. Met., [illegible] 1931, No. 3—4, 67—71).—Addition to Fe (0·18% As) of 0·1—1·47% Cu removed 0—85·9% of the As as insol. Cu₃As; 0·1—1·0% Ca as an alloy containing Si 63·07, Ca 29·70, and Fe 5·90% removed 0—16·0% of the As. 1% Ca as an alloy containing Si 54·27, Ca 21·88, Al 8·02, and Fe 13·6% removed 17·6—85·9% of the As. Remelting without deoxidisers did not affect the As content of the metal. Pb + 10% Na, and CaCl₂ were less effective with pig Fe. With steel, CaC₂ had a marked effect. Ch. Abs.

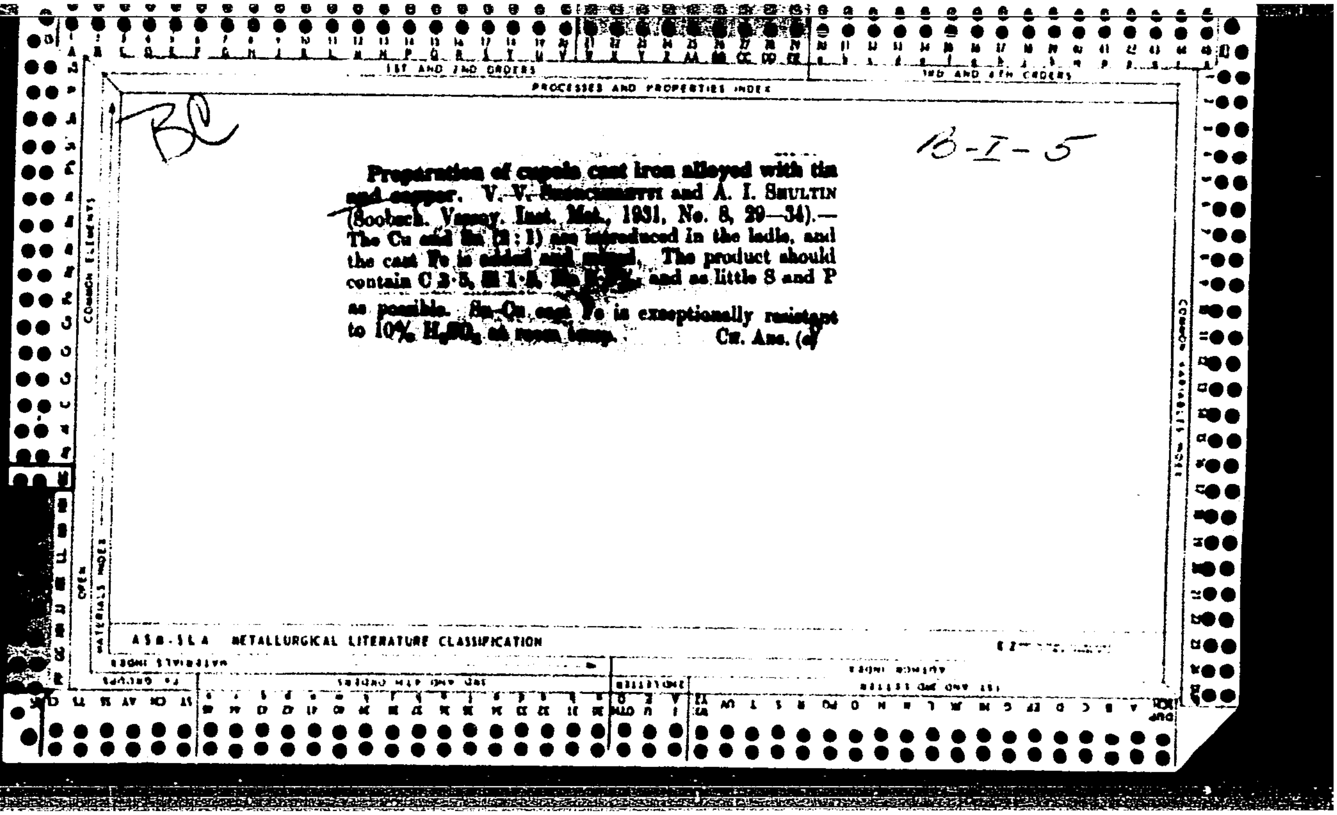
PROCESSES AND PROPERTIES INDEX

Ca

9

High-aluminum steel alloy. O. I. Ver, V. V. Skorcheletti and A. I. Shultin. *Soobshcheniya Vsesoyuznogo Inst. Metal.* 1931, Nos. 5-6, 8-16.—Steel contg. 10-14% Al is heat-resistant up to 1100° and could be used in all those cases where good mech. properties are not important. It proved highly resistant to molten S at 200-310°. Cementation of such steel is very difficult. These properties suggest the use of such alloy for containers of heat-treating baths or for various chem. processes involving C and S (such as manuf. of CS_2). However, the alloy is not resistant to acid or salt solns. It resists atm. action 9-10 times better than ordinary steel. S. L. Madorsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



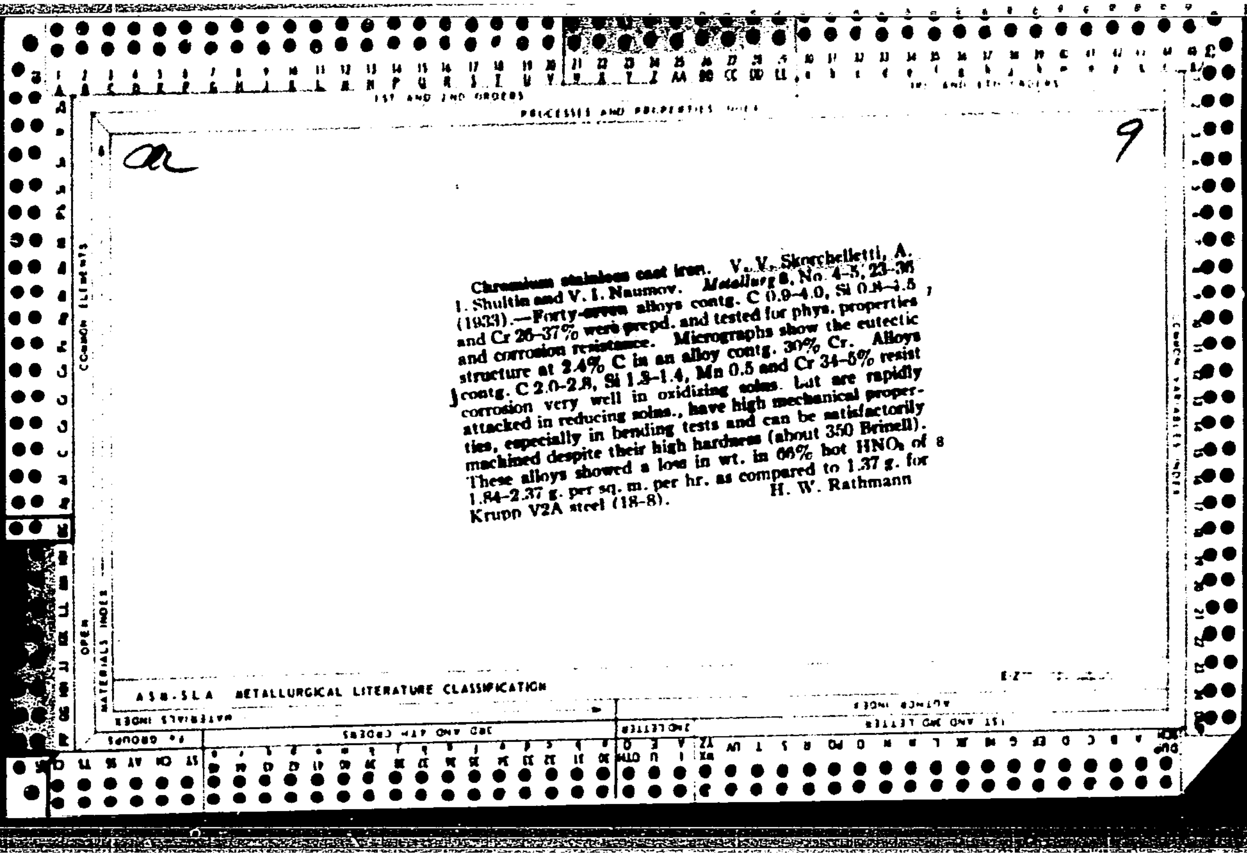
1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
3RD AND 4TH ORDERS
COMMON ELEMENTS
MATERIALS INDEX
OPEN

BC

13-I-5

Preparation of cupola cast iron alloyed with tin and copper. V. V. [illegible] and A. I. Shultin (Soobshch. Vsesoy. Inst. Met., 1931, No. 8, 29—34).—The Cu and Sn (2 : 1) are introduced in the ladle, and the cast Fe is added and mixed. The product should contain C 3·5, Si 1·5, Mn [illegible], and as little S and P as possible. Sn-Cu cast Fe is exceptionally resistant to 10% H_2SO_4 at room temp. Ch. Abs. (e)

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION


PROCESSES AND PROPERTIES INDEX
1ST AND 2ND ORDERS
COMMON ELEMENTS
MATERIALS INDEX
OPEN
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

a

9

Chromium stainless cast iron. V. V. Skorchelletti, A. I. Shultin and V. I. Naumov. *Metallurg* 8, No. 4-5, 23-36 (1933).—Forty-seven alloys contg. C 0.9-4.0, Si 0.8-3.5 and Cr 26-37% were prepd. and tested for phys. properties and corrosion resistance. Micrographs show the eutectic structure at 2.4% C in an alloy contg. 30% Cr. Alloys contg. C 2.0-2.8, Si 1.3-1.4, Mn 0.5 and Cr 34-6% resist corrosion very well in oxidizing solns. but are rapidly attacked in reducing solns., have high mechanical properties, especially in bending tests and can be satisfactorily machined despite their high hardness (about 350 Brinell). These alloys showed a loss in wt. in 66% hot HNO_3 of 1.84-2.37 g. per sq. m. per hr. as compared to 1.37 g. for Krupp V2A steel (18-8).

H. W. Rathmann

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

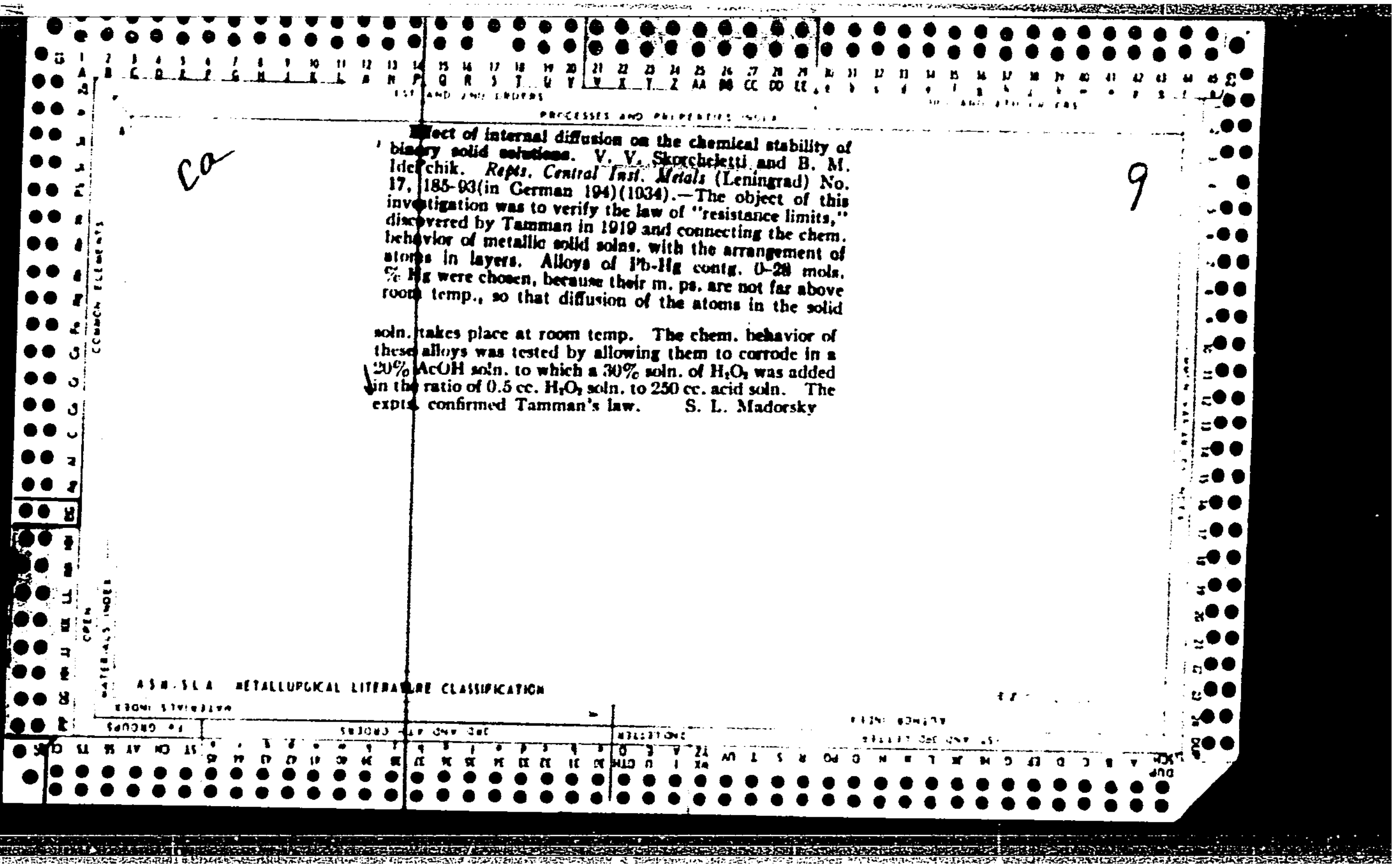
***Chemical Resistance of Two-Phase Alloys.** V. V. Skorchelletti and B. M. Idel'chik (*Sobshenia Leningradskogo Instituta Metallov* (*Rep. Central Inst. Metals* (*Leningrad*)), 1934, (17), 195-208; *C. Abs.*, 1935, 29, 5399).—[In Russian, with German summary.] Cf. *Met. Abs.*, 1934, 1, 584; 1936, 3, 258; and preceding abstract. A series of experiments was carried out on the corrosion of two-phase alloys. 10 lead-bismuth alloys and 10 tin-zinc alloys (the compositions of the alloys ranging over the whole of each system) were first examined microscopically and then tested for their corrosion-resistance; the lead-bismuth alloys in 20% acetic acid solution and 0·1*N*-sulphuric acid; the tin-zinc alloys in 0·1*N*-H_2SO_4 and 5% sodium hydroxide solution. The results revealed three types of corrosion: (*A*) that due to a potential difference between the two phases, sufficient to cause permanent electrolysis; (*B*) that due to the same cause, but in which polarization prevents permanent electrolysis; and (*C*) that in which one of the components becomes insoluble owing to passivation. Corresponding to these three types, there are three types of rate of corrosion-composition curves. (*A*) has a more or less sharp maximum; (*B*) and (*C*) are similar to each other in shape and show a sharp fall in rate of corrosion with change in composition. The degree of dispersion of the phases has a decided effect on the rate of corrosion. In type (*A*), where the hydrogen overvoltage would be smaller the finer the grain, high dispersion is undesirable (*e.g.* lead-bismuth alloys in acetic acid); in type (*B*), where the phases have a tendency to become covered with a non-conducting layer, high dispersion is desirable (*e.g.* lead-bismuth alloys in sulphuric acid solution), while in type (*C*) high dispersion will protect the more soluble phase and hence make the alloys more resistant to corrosion (*e.g.* tin-zinc alloys in sulphuric acid or sodium hydroxide solution).—N. B. V.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SKORCHELLETTI, V. V.

Chemical durability of cast iron and steel alloys; a reference book. Leningrad, Glav. red. lit-ry po chernoi metallurgii, 1939. 490 p. (50-41596)

TA462.S55



PROCESSES AND PROPERTIES INDEX

Co

9

Effect of internal diffusion on the chemical stability of binary solid solutions. V. V. Skorcheletti and B. M. Idelchik. *Repts. Central Inst. Metals* (Leningrad) No. 17, 185-93(in German 194)(1034).—The object of this investigation was to verify the law of "resistance limits," discovered by Tamman in 1919 and connecting the chem. behavior of metallic solid solns. with the arrangement of atoms in layers. Alloys of Pb-Hg contg. 0-28 mols. % Hg were chosen, because their m. ps. are not far above room temp., so that diffusion of the atoms in the solid soln. takes place at room temp. The chem. behavior of these alloys was tested by allowing them to corrode in a 20% AcOH soln. to which a 30% soln. of H_2O_2 was added in the ratio of 0.5 cc. H_2O_2 soln. to 250 cc. acid soln. The expts. confirmed Tamman's law. S. L. Madorsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SKORCHELLETTI, V.V.

Liquid lubricants for protection of steel tools against corrosion during work and storage. V. V. Skorchelletti and V. E. Piskorskii (*J. appl. chem., USSR,* [redacted]).—Efficiency of some lubricating coatings for protection of steel precision tools against corrosion in working conditions is studied. Especially effective are a mixture of lubricating oil with 20% vaseline containing up to 40% powdered K_2CrO_4, and a mixture of lubricating oil with 2—3% Na soap of montan wax obtained by extracting lignites with benzene or toluene. S. K. Lachowicz.

SKORCHELLETTI, V.V.

USSR

Atmospheric corrosion of metals at relative humidities below 100%. V. V. Skorchelletti and S. K. Tukachinskii. *J. Appl. Chem. U.S.S.R.* 26, 27-35(1953)(Engl. translation); *Zhur. Priklad. Khim.* 26, 30-40(1953).—A torsion balance with a horizontally stretched W wire, having on one side of a beam the sample counterbalanced on the other side with a paraffin-clad lead ball, is enclosed in a const.-temp. chamber together with a container for solns. for producing known humidities. The solns. can be replaced without opening the chamber. No corrosion of pure Cu and Fe surfaces was observed at 90% relative humidity (R.H.) and 0.01-0.1% SO_2. At 100% R.H. the corrosion rate became relatively high, and variation of SO_2 content had a marked effect. At 90% R.H., the adsorbed H_2O layer does not have the properties of ordinary liquid H_2O, as at 100% humidity, and absorption of SO_2 (and other gases) is not proportional to the partial gas pressure. With 0.02% SO_2, Fe corrodes above 85% R.H. (critical humidity); with iodine vapor, above 80% R.H. In 5-6 months, in absence of SO_2 or other aggressive vapors, corrosion can be observed at lower than 100% R.H. The log of the corrosion rate in the presence of SO_2 plotted against the R.H. is a straight line, cutting the R.H. axis at the value of the critical humidity, corresponding to the law $r_h = r_{100} \cdot e^{-k(100 - h)}$, where r_h is the corrosion rate at h R.H., and r_{100} is the corrosion rate at 100% R.H. If corrosion products, such as rust, are present on the surface, the critical humidity is lowered. The critical humidity for rust formed with distd. H_2O is 60%; with sea water, only 50%. Absorption of moisture by rust leads to a state of satn. with bending of the corresponding time curve to a horizontal portion; corrosion proceeds at a const. rate. The e.m.f. of a cell consisting of rust-coated Fe and a Hg drop on this is about 0.1 v. below the critical humidity; it increases more and more markedly to higher values at higher humidities. Cu alloyed with Fe raises the critical humidity.

Manfred Mannheimer

[illegible]

3

USSR.

Corrosive cracking of brass in ammonia solutions. V. V. Skorchelletti and V. A. Tilova. *J. Appl. Chem. U.S.S.R.* ~~26, 37-43~~(1953)(Engl. translation); *Zhur. Priklad. Khim.* 26, 41-9(1953).—Sheet samples of alpha brass (Cu 63.5, Zn 36.4, Fe 0.07%) 0.4 mm. thick were annealed to relieve stresses, superficially cleaned with cotton moistened with 1:1 HNO_3, polished, degreased with C_6H_6, pickled in 1:1 HNO_3 for 30 sec., rinsed in distd. H_2O, dried with filter paper, and again washed with C_6H_6 and EtOH. The samples were immediately transferred to NH_4OH soln. (d. 0.934), submitted to stresses between 1 and 10 kg./sq. mm. and observed for the time of rupture (36.25 hrs. to 9.42 hrs.). On partial immersion, the rupture time was reduced to minutes. Here, the boundary between atm. and liquid has a determining influence and also the nature of the atm. compn. (in air cracking takes place much sooner than in H_2). H_2O_2 addn. in varying concn. had less influence than the boundary with air. Anodic polarization sharply increases the rupture period at low values to a max.; at high anodic polarization, cracking takes place rather rapidly. Cathodic polarization monotonously increases the time of rupture. The results are attributed to the formation of microflaws under stress. Brass single crystals cracked at the liquid-gas interface in about 4 times as long a period as did polycrystalline samples. The orientation of the slip planes has a marked influence. Manfred Mannheimer

M

SKORCHELLETTI, V.V.

USSR/Chemistry - Steel, Corrosion Jul 53

"Investigation of the Most Important Factors Having An Effect on the Rusting of Precision Steel Products During the Process of Their Manufacture," V. V. Skorchelletti and V. Ye. Piskorskiy

Zhur Prik Khim, Vol 26, No 7, pp 730-735

Showed the effect of relative humidity, temp, and contact with air contaminated with SO_2 on the rate of formation of rust spots.

271T25

SKORCHELLETTI, USSR . V.V.

The rusting of steel articles in connection with the penetration of water vapor, sulfuric anhydride, and hydrogen sulfide through layers of spindle oil. V. V. Skorchelletti and S. D. Vasil'ev. *J. Appl. Chem.* ~~U.S.S.R. 26,~~ [illegible] (1953)(Engl. translation).—See *C.A.* 48, 7625*i*.

H. L. H.

SKORCHELLETTI, V.V.

The rusting of steel articles in connection with the penetration of water vapor, sulfuric anhydride, and hydrogen sulfide through layers of spindle oil. V. V. Skorchelletti and S. D. Vasil'ev. *Zhur. Priklad.* ~~Khim. 26, 1053-8~~ (1953).—Rusting of steel under a layer of spindle oil can occur as a result of penetration of water vapor, H_2S, and SO_2 since measurable rates of diffusion through the oil layer were shown. An insignificant protective action shown by all oils is explained by the difficulty of forming a film of electrolyte under such conditions. V. N. Bednarski

SKORCHELLETTI, V.V.

②

Investigation of some liquid lubricants for the corrosion protection of steel parts in the process of manufacture and in storage. III. V. V. Skorchelletti and V. E. Piskorskii. *Zhur. Priklad. Khim.* 27, 314-18(1954); cf. *C.A.* 48, 7525*i*.—Many well-known additives to increase the anticorrosion properties of lubricants were tried and tested. The basic principle considered was the formation of an anticorrosive aq. film on the surface of the metal with the H_2O vapors which normally penetrate the layer of grease. Of the salts the most effective was K_2CrO_4. For a 2-3 months' storage 10% of the salt was sufficient; for longer periods up to 40% was required. A grease made of petroleum jelly thickened with 20% petrolatum to which 40% of powd. K_2CrO_4 was added proved 100% effective after 375 days at 20-22° in an atm. of 100% humidity. The disadvantage of K_2CrO_4 was the fact that it attacks the skin and cannot be used for parts which have to be handled. The addn. of $KMnO_4$ was not satisfactory; $NaNO_2$ was hygroscopic. Of several salts the most promising was Na benzoate. Of the salts of high-mol. acids only the Ba salt of montan wax was satisfactory up to 3%; at higher concns. it jellified.

I. Bencowitz

SKORCHELETTI, V. V.

AID - P-99

Subject : USSR/Chemistry

Card : 1/1

Authors : Skorcheletti, V. V., Bukhbinder, A. I., and Piskorskiy, V. Ye.

Title : Thin-layer lubricants for storing steel ware.

Periodical : Zhur. Prikl. Khim. 27, no. 4, 454-456, 1954

Abstract : The anticorrosive activity of an aluminum oleate lubricant spread in a thin layer on the surface of steel articles is not inferior to that of a thickly spread lubricant consisting of 60% vaseline oil and 40% vaseline. Two tables. One reference (U.S.S.R.): 1953.

Institution : None

Submitted : June 30, 1952

GLIKMAN, L.A.; DAVIDENKOV, N.N., retsenzent; SKORCHELLETTI, V.V., kandidat
tekhnicheskikh nauk, redaktor; POL'SKAYA, R.G., tekhnicheskiy redaktor

[Mechanical strength and corrosion resistance of metals] Korroziommo-mekhanicheskaia prochnost' metallov. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1955. 174 p. [Microfilm] (MLRA 8:2)

1. Deystvitel'nyy chlen AN USSR (for Davidenkov).
(Strength of materials) (Corrosion and anticorrosives)

AID P - 3501

Subject : USSR/Chemistry

Card 1/1 Pub. 152 - 16/21

Authors : Skorchelletii, V. V. and S. Ye. Tukachinskiy

Title : The adsorption structure of rust

Periodical : Zhur. prikl. khim., 28, 6, 651-655, 1955

Abstract : Carbon steel (0.08% C) was immersed in distilled water, in 3% sodium chloride solution, and in synthetic sea water. After formation of a thick layer of rust and drying, the samples were subjected to various degrees of humidity. The structure of rust depends on the conditions under which it was formed. Seven diagrams, 9 references, 4 Russian (1936-1953).

Institution : Leningrad Polytechnic Institute

Submitted : Mr 6, 1954

AUTHORS: Skorchelletti, V. V., Idel'chik, B. M. SOV/163-58-3-48/49

TITLE: On the Corrosion Cracking of Soft Steels (O korrozionnom rastreskivanii myagkoy stali)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 3, pp 279-284 (USSR)

ABSTRACT: The influence of the polarization on the cracking rate of soft steels was investigated. At a tension of 29,1; 24,3 and 22 kg/mm^2 the anodic polarization increases in the beginning and then drops until the occurrence of the cracking. The cathodic polarization hampers the cracking process. The experiments carried out with anodic polarization demonstrate that the corrosion cracking not only causes an unequal corrosion of the metals but also a decrease of the strength of the metal. The decrease of the strength of the metal surface leads to an electrocapillary phenomenon. From the results obtained may be concluded that in classifying the stability of metals to corrosion cracking it is important to know whether the metal is in contact with another metal, and whether factors occur which cause a forced polarization of the metals. When such factors occur investigations of the effect of the anodic and cathodic polarization on the cor-

Card 1/2

On the Corrosion Cracking of Soft Steels SOV/163-58-3-48/49

rosion rate are necessary.
There are 3 figures and 10 references, 6 of which are Soviet.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnical Institute)

SUBMITTED: October 13, 1957

Card 2/2

SKORCHELLETTI, V.V.; STEPANOV, I.A.; KUKSENKO, Ye.P.

Anodic behavior of alloys of the copper-zinc system in 0.1N. solution of potassium chloride. Zhur.prikl.khim. 31 no.12: 1823-1831 D '58. (MIRA 12:2)

(Copper-zinc alloys--Electric properties)
(Potassium chloride)

PHASE I BOOK EXPLOITATION SOV/3590

Skorchelletti, Vladimir Vladimirovich

Teoreticheskaya elektrokhimiya (Theoretical Electrochemistry) Leningrad, Goskhimizdat, 1959. 608 p. Errata slip inserted. 13,000 copies printed.

Eds.: V.L. Kheyfets and V.A. Kots; Tech. Ed.: Ye.Ya. Erlikh.

PURPOSE: This book is intended for industrial engineers and personnel of scientific research institutes who wish to broaden their knowledge or become acquainted with the principles of theoretical electrochemistry. It may also be used as a textbook by students of electrochemistry at institutions for higher technical education and in technical schools.

COVERAGE: The book is divided into three parts: part I deals with the properties of solutions of electrolytes, part II with the thermodynamics of galvanic cells, and part III with the kinetics of electrode processes. This latter part has been treated at greater length and in greater detail than the first two parts. A textbook published in 1954 by the Leningrad Polytechnic Institute imeni M.I. Kalinin (title not given) provided the basis for the present work.

Card 1/11

SKORCHELLETTI, V.V.; GOLUBEVA, N.K.

Effect of irregular aeration on the rate of iron corrosion.
Zhur.prikl.khim. 35 no.7:1570-1575 Jl '62. (MIRA 15:8)

1. Leningradskiy politekhnicheskiy institut imeni M.I.Kalinina.
(Electrodes, Iron) (Oxygen)
(Corrosion and anticorrosives)

SKORCHELETTI, V.V.; BORSHCHEVSKIY, A.M.

"Investigation of the Passive State of Metals by the Method of Cathodic Polarization--The Bismuth-Antimony Alloy System."

Report presented at the 14th meeting CITCE, Intl. Comm. of Electrochemical Thermodynamics and Kinetics, Moscow, 19-25 Aug 63.

Polytechnical Institute, Leningrad.

ACCESSION NR: AT4026282 S/2563/63/000/223/0131/0140

AUTHOR: Skorchelletti, V. V.; Idel'chik, B. M.

TITLE: Corrosion cracking of soft steel

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy*, no. 223, 1963. Metallurgiya tsvetny*kh metallov (Metallurgy of nonferrous metals), 131-140

TOPIC TAGS: soft steel, soft steel corrosion, soft steel cracking, steel corrosion cracking, corrosion, cracking, polarization, anode polarization, cathode polarization

ABSTRACT: On the basis of a detailed review of the literature on the relationship between the hardness and crack-resistance of metals and their electrochemical polarization, which can lead to unequal corrosion and the development of stress concentrators, the authors investigated the influence of the electrode potential of soft alloy steel on the cracking rate in a hot, saturated solution of ammonium nitrate. It was found that the cracking rate decreased with a decrease in tensile stress (see Fig. 1 of the Enclosure). Anode polarization at stresses of 29.1, 24.3, and 19.1 kg/mm^2 first increased and then decreased the time prior to cracking, while cathode polarization uniformly delayed the appearance of cracks. Tests with anode polarization showed that corrosion cracking of steel is not caused simply by unequal corrosion and the development of stress concentrators, but by the

ACCESSION NR: AT4026282

ENCLOSURE: 01

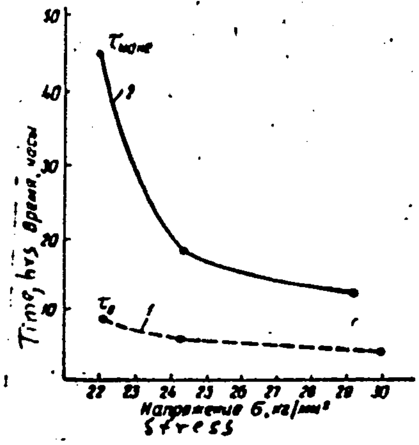


Fig. 1 - Relationship between time before cracking and stress.

Card 3/3

ACCESSION NR: AT4026283 S/2563/63/000/223/0141/0157

AUTHOR: Skorchelletti, V.V.; Bukhbinder, A.I., Montlevich, M.I.

TITLE: Chemical stability of acid-proof steel and alloys of the Hastelloy type in sulfuric, orthophosphoric, and fluosilicic acids

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy*, no. 223, 1963. Metallurgiya tsvetny*kh metallov (Metallurgy of nonferrous metals), 141-157

TOPIC TAGS: steel, Hastelloy steel, corrosion, steel corrosion, acid resistance, sulfuric acid, orthophosphoric acid, fluosilicic acid, stainless steel

ABSTRACT: A series of 16 alloy steels, quenched in water or air from 1000-1150C, was tested in the cast state for corrosion under the influence of sulfuric, orthophosphoric and fluosilicic acids, as part of an investigation of stainless steels performed under the guidance of Prof. Yu. A. Nekhendzi. These steels all contained large amounts of Cr and/or Ni, plus variable amounts of Mo, Cu, Si and Ti. During the first stage of this investigation, polished cylindrical test samples were placed in 200 cc of acid in a constant temperature oil bath for 120 hours and the weight loss was determined. Those showing the highest corrosion resistance were then subjected to further study to determine the effects of

Card 1/8

ACCESSION NR: AT4026283

temperature and acid concentration. Three alloy steels were tested further in sulfuric acid: Hastelloy type A (0.09%C, 0.84%Si, 2.37%Mn, 55.14%Ni, 21.4%Mo); Hastelloy type B (0.07%C, 1.0%Si, 1.0%Mn, 57.29%Ni, 35.26%Mo); and steel 10-20 Mo, Cu (0.14%C, 0.3%Si, 0.7%Mn, 11.45%Cr. 18.75%Ni, 4.0%Cu, 5.61%Mo). Of these, Hastelloy B showed the highest corrosion resistance, while Hastelloy A was less stable, expecially in 70-95% H_2SO_4 at 80-100C. Fig. 1 of the Enclosure shows the isotherms of the corrosion rate of Hastelloy type A alloy in sulfuric acid. Fig. 2 shows the same for the Hastelloy type B alloy, while Fig. 3 shows the corrosion rate of the 10-20 Mo, Cu alloy in 60-95% sulfuric acid. At high temperatures, this alloy was stable only up to 40% H_2SO_4. Two alloys were tested further for corrosion in orthophosphoric acid: steel 25-5 (0.14%C, $\leq$0.4%Si, $\leq$0.8%Mn, 27.5%Cr, 5.15%Ni); and steel 20-10, Mo, Ti (0.12%C, $\leq$ 0.4%Si, $\leq$0.8%Mn, 19.3%Cr. 9.37%Ni, 2.93%Mo, 0.1%Ti). Fig. 4. of the Enclosure shows the isotherms of the corrosion rate of steel 25-2 in orthophosphoric acid. The tests showed that 20-10 Mo, Ti steel has high stability in H_3PO_4 under all conditions and is resistant to chloride ions, while steel 25-5 shows very irregular passivity which is destroyed by NaCl. It was found that the 10-20 Mo, Cu steel (0.10-0.12%C, 9.01-9.55% Cr, 18.02-19.90%Ni, 3.79-4.89%Mo, 3.48-4.55%Cu) had the highest corrosion resistance

ACCESSION NR: AT4026283

in fluosilicic acid (2-25% at 30-80C). An increase of chromium and nickel up to 20-30% in alloy steel containing molybdenum and copper does not lead to higher chemical stability than that of 10-20 Mo, Cu steel. "Manufacture of the alloys and investigation of the casting properties, strength and metallographic structure were carried out at the kafedra "Liteynoye Proizvodstva; (Foundry Department) by Docent I. V. Gruzny*kh". Orig. art. has: 9 figures and 10 tables.

ASSOCIATION: Leningradskiy Politekhnicheskiy institut (Leningrad Polytechnical Institute)

SUBMITTED: 00 ENCL: 05 SUB CODE: MM

NO REF SOV: 002 OTHER: 001

Card 3/8

ACCESSION NR: AT4026283

ENCLOSURE: 02

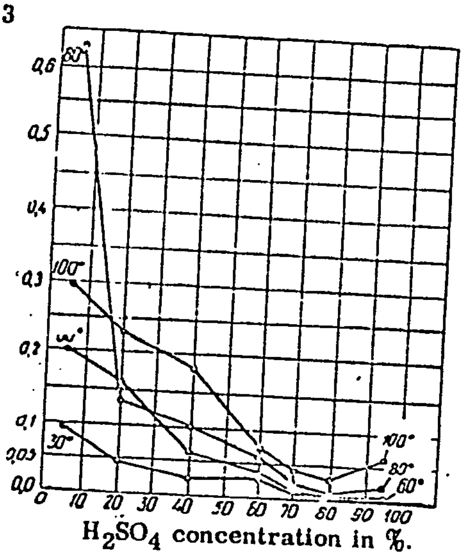


Fig. 2. Isotherms of the corrosion rate of Hastelloy type B alloy in sulfuric acid.

Card 5/8

ACCESSION NR: AT4026283

ENCLOSURE: 03

Corrosion rate in g/m²hr.

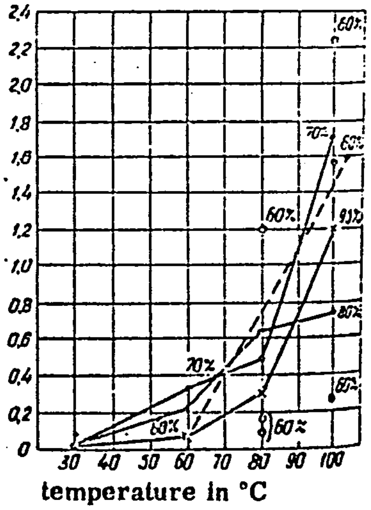
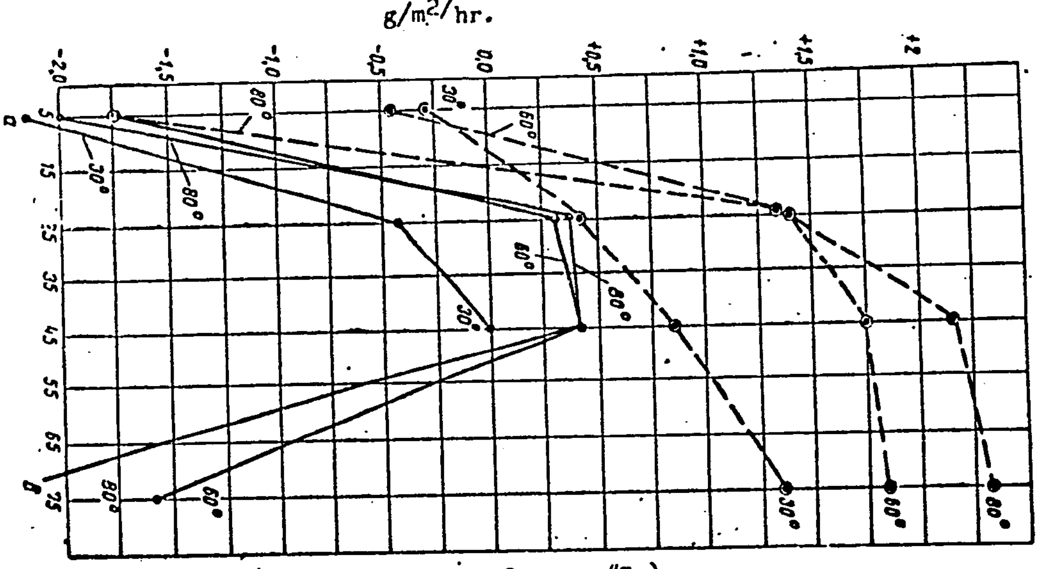


Fig. 3. Corrosion rate of 10-20 steel with Mo, Cu in 60-95% sulfuric acid depending on the temperature.

ACCESSION NR: AT4026283

ENCLOSURE: 04



(continued in enclosure #5)

Card 7/8

SKORCHELLETTI, V.V.; BORSHCHEVSKIY, A.M.

Study of the passive state of the system of bismuth-antimony alloys by the method of cathodic polarization. Zhur.prikl.khim. 37 no.1:87-94 Ja '64. (MIRA 17:2)